

1253 Frequency Response Analyser

Product Summary

Key Features

Waveforms sine, square
 Frequency range 1mHz to 20kHz
 Frequency resolution 1 in 4000
 Applied DC Bias Range +/-10.23V
 Applied AC Range 0 to 10.23Vrms
 Voltage measurement range 1µV to 300Vrms
 2 voltage inputs (multiplexed)
 Measures single channel voltage and transfer function
 Transfer function accuracy 1%, 1deg
 Automatic sweeps - logarithmic frequency
 other facilities included: synchroniser, mod / demod

PC Software: ZPlot (electrochemistry requires a potentiostat), Impednce (materials requires an impedance interface), FRA (electronics)

cost effective FRA - for servo / control test, electronics, electrochemistry, materials research....



Applications / Customers

Used with an impedance interface (1296 or 1294) or potentiostat (1287) for testing the impedance of a wide range of materials....

LCDs, adhesive cure, ferro-electrics, sensors, corrosion protection coatings, inhibitors, ceramics, electronic components, general materials test, rubber, aerospace materials, polymers, insulators, high voltage piezoelectric materials, fuel cell materials, battery materials....

Typical customers - universities (electrochemistry / materials / physics departments), national labs, materials research centres, defence research labs, electronic component manufacturers, composite material manufacturers, battery / fuel cell / supercapacitor manufacturers....

Used stand alone for testing servo systems, amplifiers, filters, switch mode power supplies....

Typical customers - Aerospace, defence / military suppliers (missiles, torpedos, tanks, rockets), power supply manufacturers, electronic suppliers (filters, amplifiers)....

Facilities

Frequency range - from 1mHz to 20kHz, allows characterisation of mechanical and hydraulic systems, electronic components, materials and electrochemical phenomena.

Flexibility - two voltage inputs for servo and electronic applications, connection to 1296 / 1294 / 1287 for extended materials or electrochemical research.

Good Accuracy - 1%, 1deg accuracy allows precise characterisation of materials

Other facilities included- synchroniser for rotating machinery, mod / demod for modulated control systems, (refer to brochure for more details).

Systems / Accessories

Electrochemistry

Electrochemical system can be assembled 1253, 1287, Zplot and Corrware (similar to 1280Z). Accessories for electrochemistry include 1281 multiplexer & 12852A flat cell for corrosion studies

Materials Test Systems

Materials test systems can be assembled using 1253 with 1296 or 1294, Impednce and Zplot. Accessories for materials test systems

12962A, 12963A, 12964A - room temperature sample holders (for tests on solids / liquids)

129610A to 129614A - Various cryostats, furnaces plus high temperature sample holders

Servo / Electronic test systems

1253 stand alone or with FRA PC software

